

# SAM Reference



USER MANUAL

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# Specifications

**Brand: Small Audio Manufacture**

**Name: Reference**

**Type: Belt drive**

**Weight: cca 35 kg**

**Material: MDF, aluminium, steele, brass**

**Drive: DC synchronous, 110-230V**

**Drive type: separated**

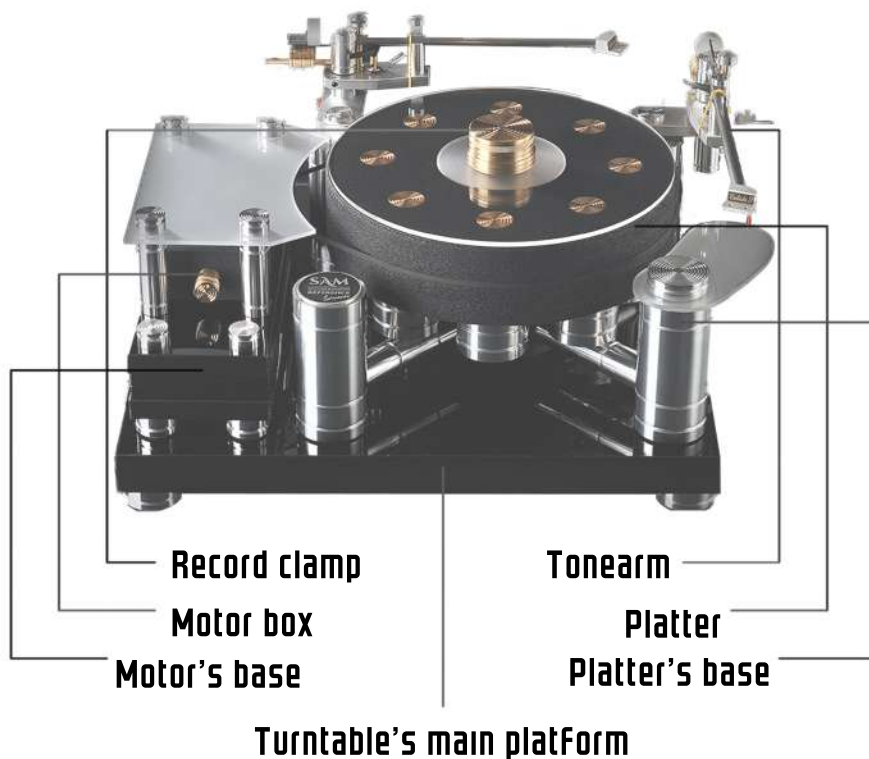
**Speed: 33.3 / 45 rpm**

**Platter: Ballanced**

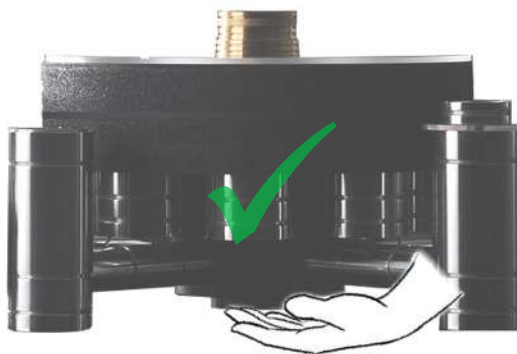
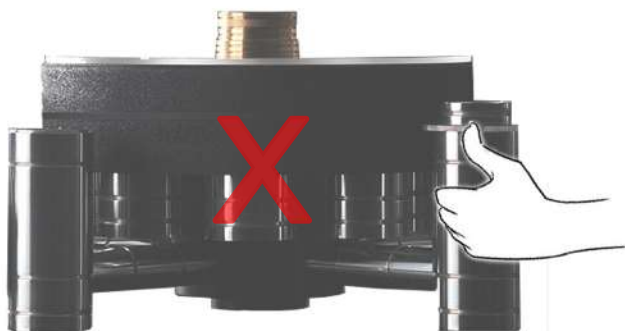
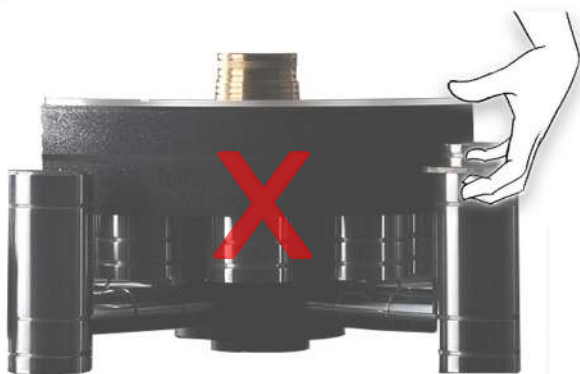
**Bearings: berillium**

**No. of tonearms supported: 4**

# General Overview



# Lifting up the turntable



# Platter



Spindle

Platter's upper weights (material: brass)

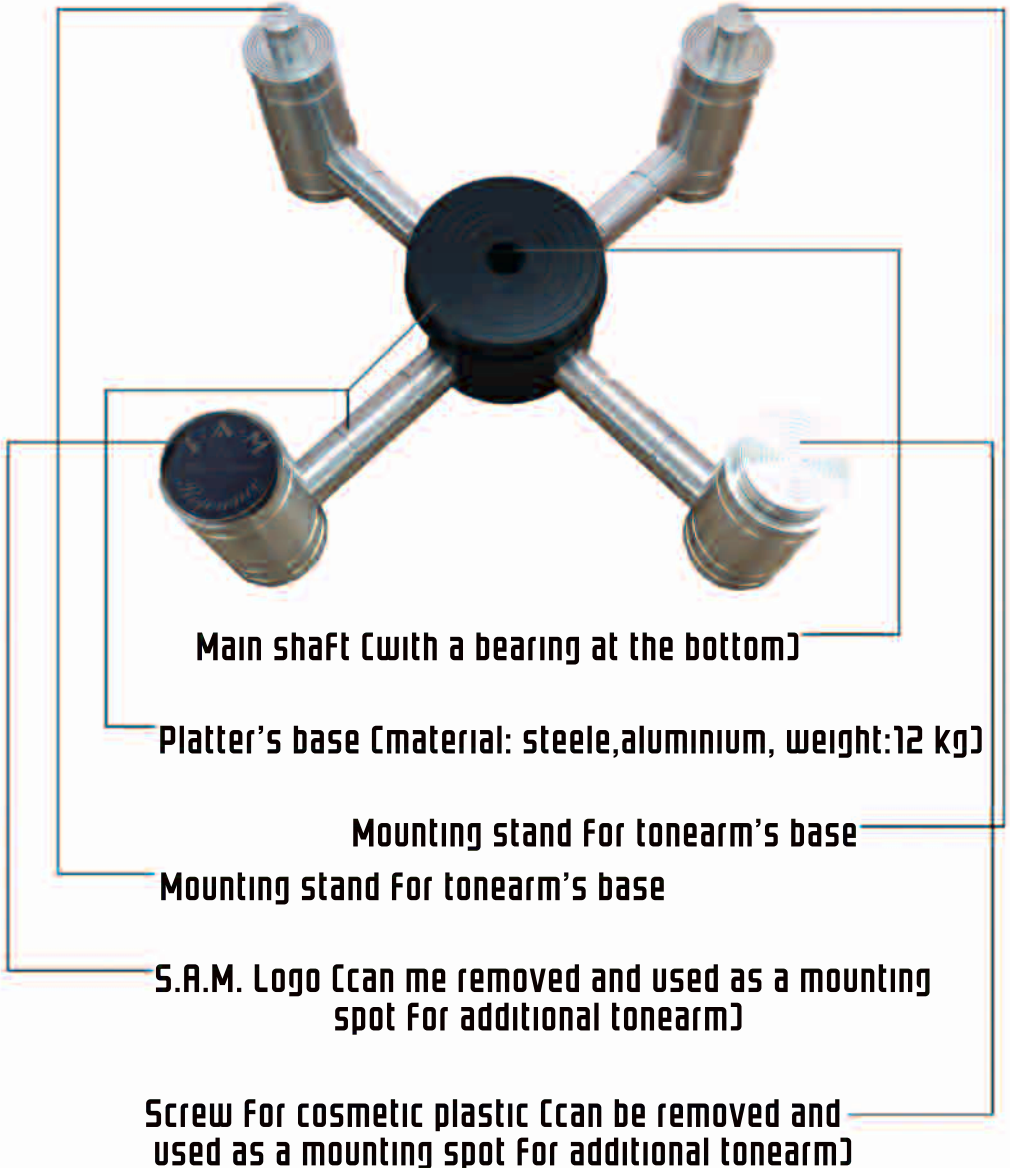
Platter (material: MDF, diameter cca 300 mm, ballanced, weight; 7kg, height: 70 mm)



Platter's main weights  
(8 pieces, rotating, material: aluminium)

Powerful main axis ( $\varnothing 20$ , material: steel)

# Platter's base



# Drive Unit



Plastic cover for motor box

Plastic cover screws

Drive's base

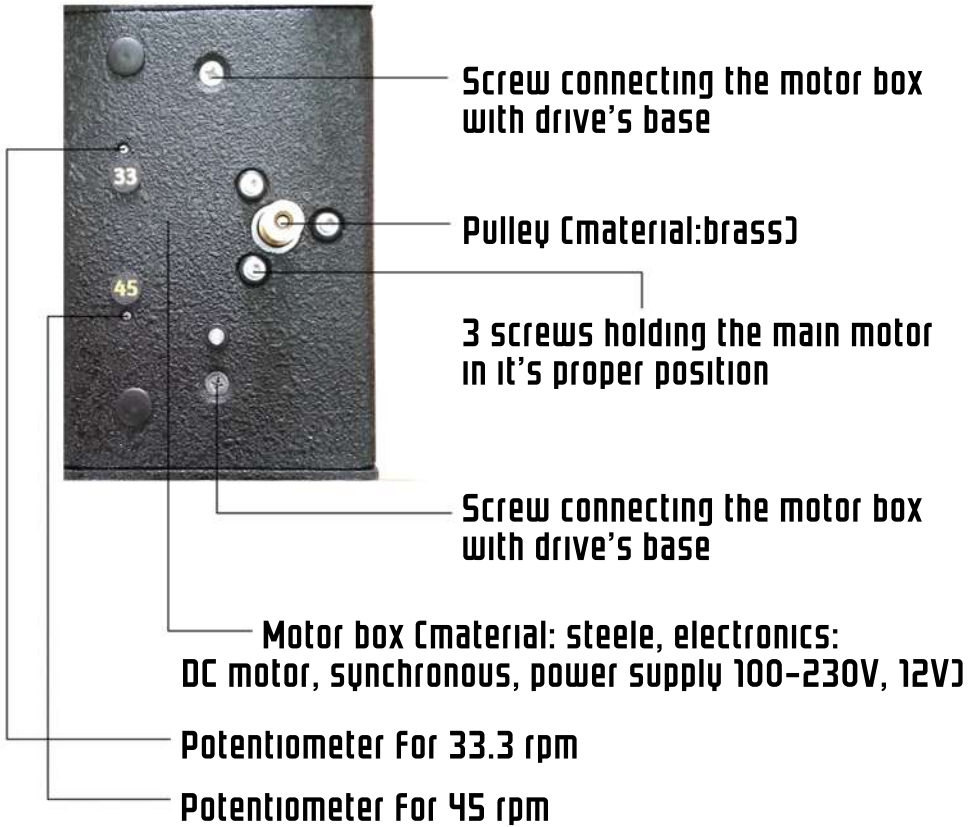
(material: MDF, steele, weight:10kg)

Motor box

Drive unit's Feets (must be equally ballanced,  
can be used as a ballancing tool, material: aluminium)



# Motor box



Power switch  
(3 positions. 45 rpm left, OFF middle, 33.3 rpm right)

# Additional parts



**Record clamp**

(height: cca 30 mm,  $\varnothing$  65, weight cca 400 grams, material: brass)



**Turntable main platform** (length 50 cm  
depth 38 cm, weight 5 kg, material: MDF)

**Main platform feet** (must be equally balanced,  
can be used as a ballancing tool, material: aluminium)



**Record matt**

( $\varnothing$  300 mm, thikness 0.4 mm, transparent, material: acrylic)

# Q & A & Troubleshooting

## **My turntable arrived damaged. What can I do?**

Please contact us as soon as possible at [sam-audio.eu](mailto:sam-audio.eu) or at [smallaudiomanufacture@gmail.com](mailto:smallaudiomanufacture@gmail.com)

## **What's the distance between the motor unit and the turntable?**

The distance should be between 0,5–1 cm. Over time, when the belt gets worn out, the distance can be higher.

## **What's transparent plexi needed for? Do I have to use it?**

We, in Small Audio Manufacture, believe that the acrylic matt is the best matt of them all. But it's customer's choice to use any other matt he wishes so. We do NOT advice to use the turntable without the matt as the surface of the platter could damage your records.

## **I can not set the correct and constant speed. Please help!**

**Step 1:** Please check if the your distance from the the turntable to the motor unit as suggested. If a motor unit is too far away, it could cause too much tension on the pulley which could lead to unstable speed.

**Step 2:** Please check if all of your tonearm parameters (such as spindle to center distance, tracking force etc) are all properly set

**Step 3:** Please check the three screws around the pulley. Sometimes, some of them can get loose during the transport which could lead to the main motor not being in it's proper position.

# Q & A & Troubleshooting

If that's the case, detach the motor's unit from its base and check from the inside if all the 3 screws are tight enough.

Step 4: Open up the motor box and check if all the wires are connected.

Step 5: Dettach the platter from its base and check if there's enough oil in the main shaft.

**The motor is loud and there is too much noise. What can I do?**

Most of the turntables with belt and separated drives have a little noisier motors. But of course, there should not be notable and disturbing noise while one's listening to music or sitting in his sweet spot. If a motor is too noisy and interrupting the process of listening to music, please take the screwdriver and spin each of the 3 screws around the pulley, left or right, until you reduce the noise. Sometimes, these screws can get disturbed in the transport and it requires a certain tweeking and adjustments after the turntable arrives to its destination.

**My speed is stable and constant but not a correct one. Why is that?**

If your speed is stable but not 33.3 or 45 RPM, that means that the right speeds are not set on the potentiometers. Take the small screwdriver and set the correct speeds using the stroboscopic disc or any other appropriate device or a software.

**I've turned the power on, but the platter is not moving. Why?**

Step 1: Please check if perhaps the potentiometers are set to zero.

# Q & A & Troubleshooting

**Step 2: Please check is pulley spinning.**

**Step 3: Are there enough oil in the bearings? Some countries have a very strict and rigid liquid custom policy so it is possible that all the oil was removed by custom's officials. If there's no oil, please refill it to a 1/3 of the shaft.**

**What oil should I use on my turntable and how often?**

**Re-oiling of the turntable is only required 1-2 times during a lifetime. While there are many expensive oils on the market, we at Small Audio Manufacture believe that a simple oil for gear drives of vehicles (like Hipenol GTL SAE 90) are perfectly fine.**

**Turntable arrived, all is well, but there is some leakage of the oil. What should I do?**

**Sometimes, the packages might get flipped over in the transport so some leakage might occur. If that's the case take a piece of rug and gently remove the spilled oil.**

**My speed was alright but I moved the motor unit or the turntable and now the speed is different. What I did wrong?**

**Every physical movement of the motor unit or the turntable means that the distance between the motor unit and the turntable is changed and such change requires setting the right speeds on the potentiometers once again.**

**For any further issues please contact us at  
[smallaudiomanufacture@gmail.com](mailto:smallaudiomanufacture@gmail.com)**

# Disclaimer

In case of any modification or altering of the S.A.M. products (such as re-painting the platter to another color, changing of the electronics, dismantle of the tonearm or any other part or any other similar operation), S.A.M. **does not** have any responsibility in possible malfunction or damage that may occur as a result of such actions. S.A.M. also does not share, cover or refund the costs of possible repairs or setup installation by outside parties (such as various tool makers, audiophile experts etc.) unless agreed upon. All the questions, issues or problems must be addressed first and foremost directly through Small Audio Manufacture at [www.sam-audio.eu](http://www.sam-audio.eu) or [smallaudiomanufacture@gmail.com](mailto:smallaudiomanufacture@gmail.com) or call us at 00385958513607.

S.A.M. also hold rights for possible minor changes (such as colors, dimensions or shapes) in final production, that may differ from the actual product being advertised.

All Small Audio Manufacture products have 3 years warranty on electronics and 5 years warranty on all other parts.

Thank you for your understanding.

Yours truly,

Small Audio Manufacture